

Reservoir Storage Outlook

June 19, 2008

State Water Projects Bureau
DNRC Water Resources Division



Montana DNRC State Water Projects Bureau Reservoirs

This map illustrates the locations of 15 state water project reservoirs across Montana. The reservoirs are marked with blue dots and labeled as follows:

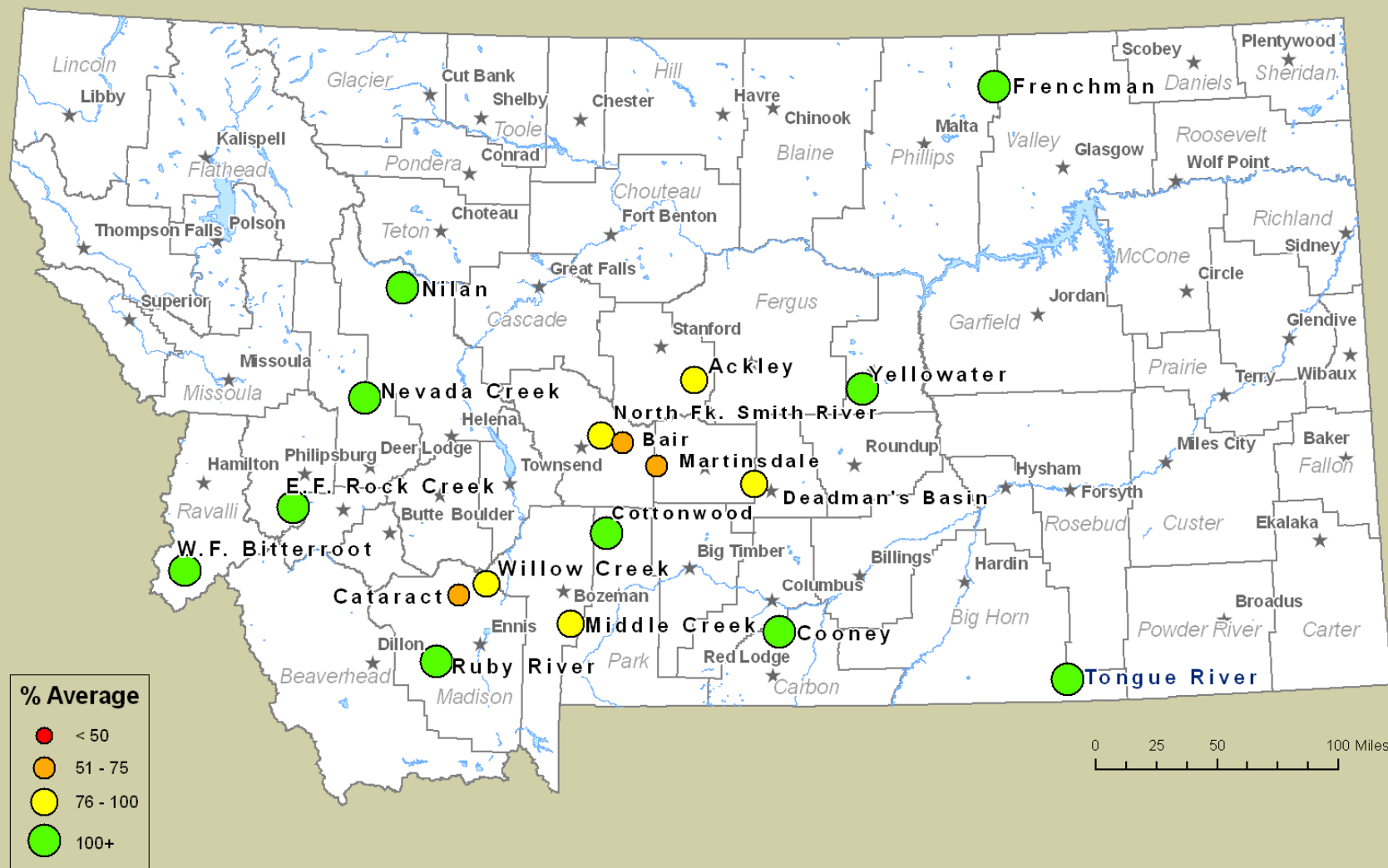
- Frenchman
- Nitan
- Nevada Creek
- E.F. Rock Creek
- W.F. Bitterroot
- Cataract
- Willow Creek
- Ruby River
- Middle Creek
- Cooney
- Ackley
- North Fk. Smith River
- Bair
- Martinsdale
- Deadman's Basin
- Cottonwood
- Yellowwater
- Tongue River

The map also shows county boundaries and names, as well as major cities and towns. A scale bar at the bottom right indicates distances from 0 to 100 miles.



Reservoir Contents Report

June 19, 2008



MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

WATER RESOURCES DIVISION - STATE WATER PROJECTS BUREAU

June 19, 2008

All Contents in Acre-Feet

RESERVOIR	CAPACITY*	CONTENTS				% CAPACITY 6/19/2008	% AVERAGE 6/19/2008	Reading Date	COMMENTS
		AVERAGE 1960 - 2007	Last Year 6/1/2007	Last Month 5/1/2008	PRESENT 6/19/2008				
	Full Pool								
	Contents								
ACKLEY	6,140	4,729	4,963	2,185	4,159	68	88	6/11/08	R. Epkes el.=43703.03 (3,834 af)
BAIR	7,300	5,737	3,547	1,900	3,071	42	54	6/9/08	L. Hammond sd=263' el.=5304.14
CATARACT	1,478	551	502	350	370	25	67	5/21/08	volume estimated
COONEY	28,230	23,809	22,800	20,647	28,230	100	119	6/16/08	D. Adair el.=4251.1'
COTTONWOOD	1,900	1,417	1,430	593	1,900	100	134	6/9/08	L. Arthun Spilling since June 9th
DEADMAN'S BASIN	75,968	53,282	44,003	29,535	43,474	57	82	6/12/08	T. Hice sd = 313' (39,724 af)
E.F. ROCK CREEK	16,040	10,273	13,375	11,470	14,024	87	137	6/16/08	data logger
FRENCHMAN	2,777	3,008	3,136	700	3,055	110	102	6/14/08	G. Yeska ~6" above spillway
MARTINSDALE	23,348	15,948	6,021	1,750	10,977	47	69	6/15/08	L. Hammond sd=197' el.=4763.92
MIDDLE CREEK	10,184	9,476	10,184	6,809	8,210	81	87	6/13/08	B. Grant el.=6712.53
NEVADA CREEK	11,207	11,044	10,870	8,600	11,630	104	105	6/13/08	R. Hawkins el.=4617.16
NILAN	10,992	8,329	9,345	6,865	10,754	98	129	5/30/08	J. Beck el.= 4442.11 (9,854 af)
N.FK. SMITH RIVER	11,406	10,238	11,299	6,488	11,406	100	111	6/16/08	K. Hochstrat spilling
RUBY RIVER	36,633	37,404	36,683	37,400	38,399	105	103	6/10/08	K. Strasheim el.=5393.75
TONGUE RIVER	79,071	63,772	80,213	49,942	81,788	103	128	6/16/08	data logger
W.F. BITTERROOT	32,362	32,476	32,362	28,422	33,656	104	104	6/9/08	L. Schock res elev = 4727.42
WILLOW CREEK	18,000	16,734	17,602	12,933	15,345	85	92	6/11/08	L. Kinne el.=4,732.33
YELLOWATER	3,842	1,210	816	500	1,730	45	143	5/29/08	B. Murphy

Ackley Reservoir



Off stream Storage Judith River
Irrigates ~3,000 Acres

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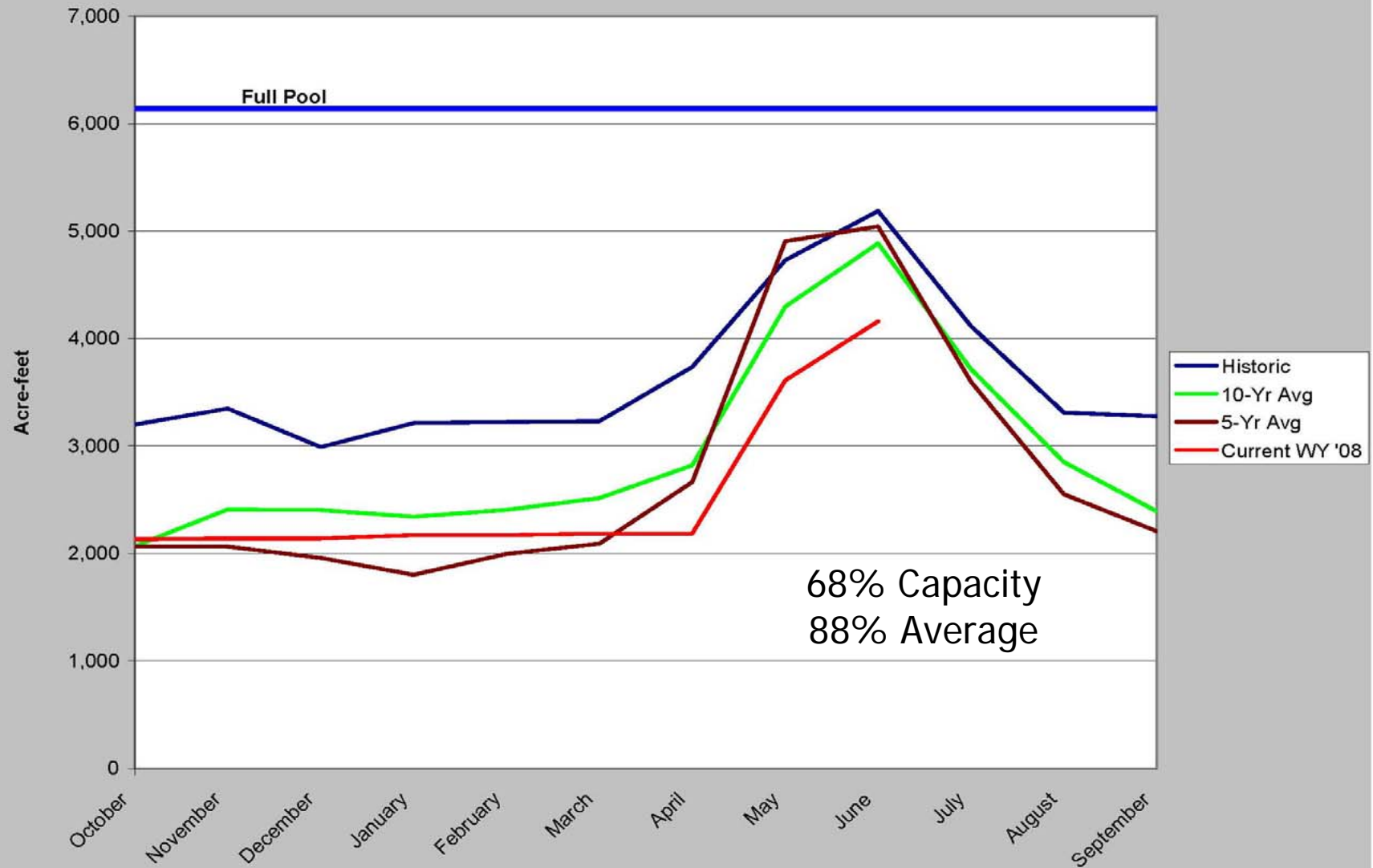
Pointer 46°57'09.81" N 109°56'24.56" W

Streaming ||||| 100%

Eye alt 1730 ft

Ackley Reservoir

(Historic, 10 yr, and 5 yr Average vs. Current Storage)



Bair Reservoir



Instream Storage N.F. Musselshell
Supplements Martinsdale Reservoir
Total irrigation in cooperation with Martinsdale Reservoir ~35,000 Acres

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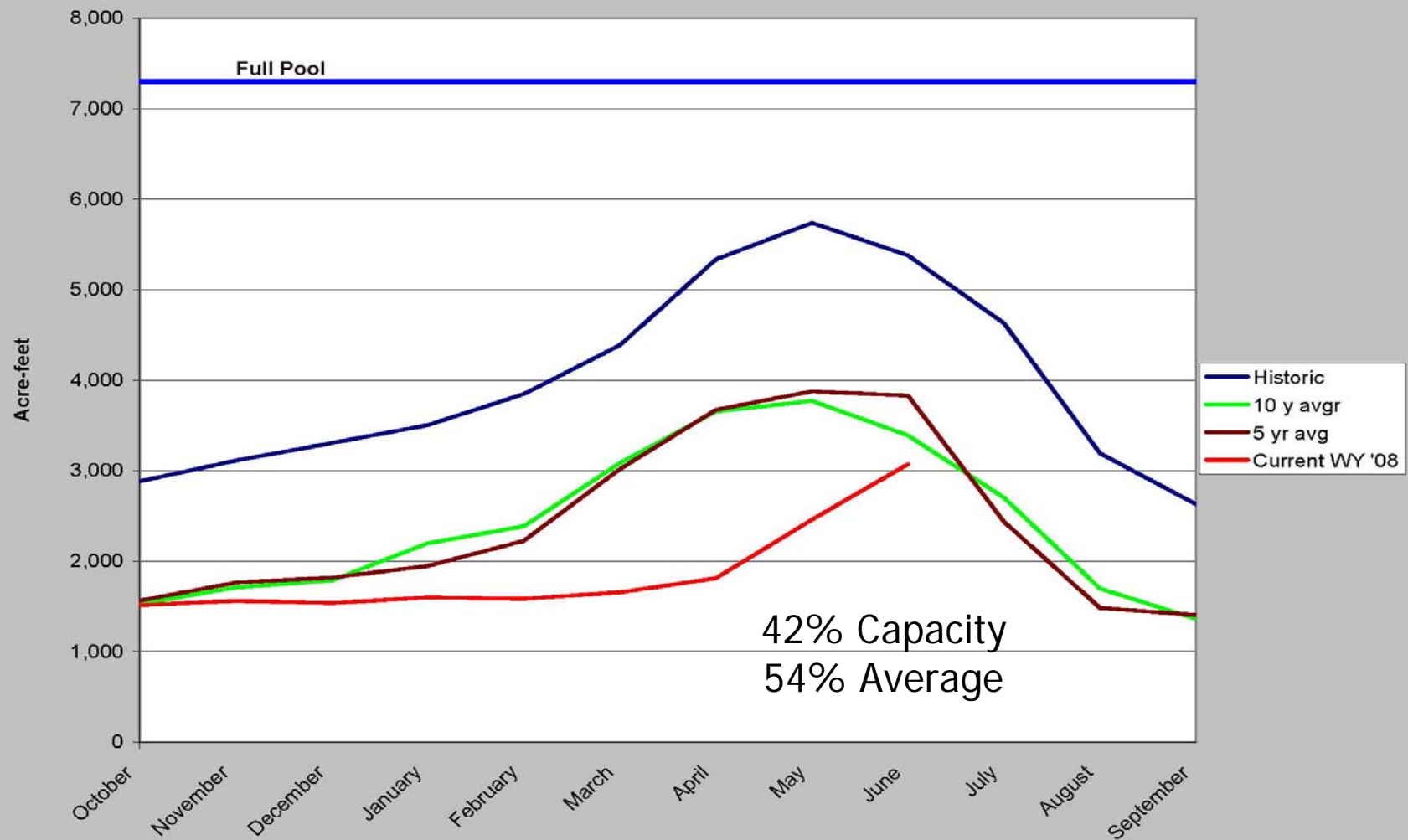
Pointer 46°34'59.48" N 110°33'44.20" W

Streaming ||||| 100%

Eye alt 2711 ft

Bair Reservoir

(Historic, 10 yr, and 5 yr Average vs. Current Storage)



Martinsdale Reservoir



Off stream Storage S.F. Musselshell River
Supplemented from Bair Reservoir via N.F. Diversion Canal
Total Irrigation in cooperation w/Bair ~ 35,000 Acres

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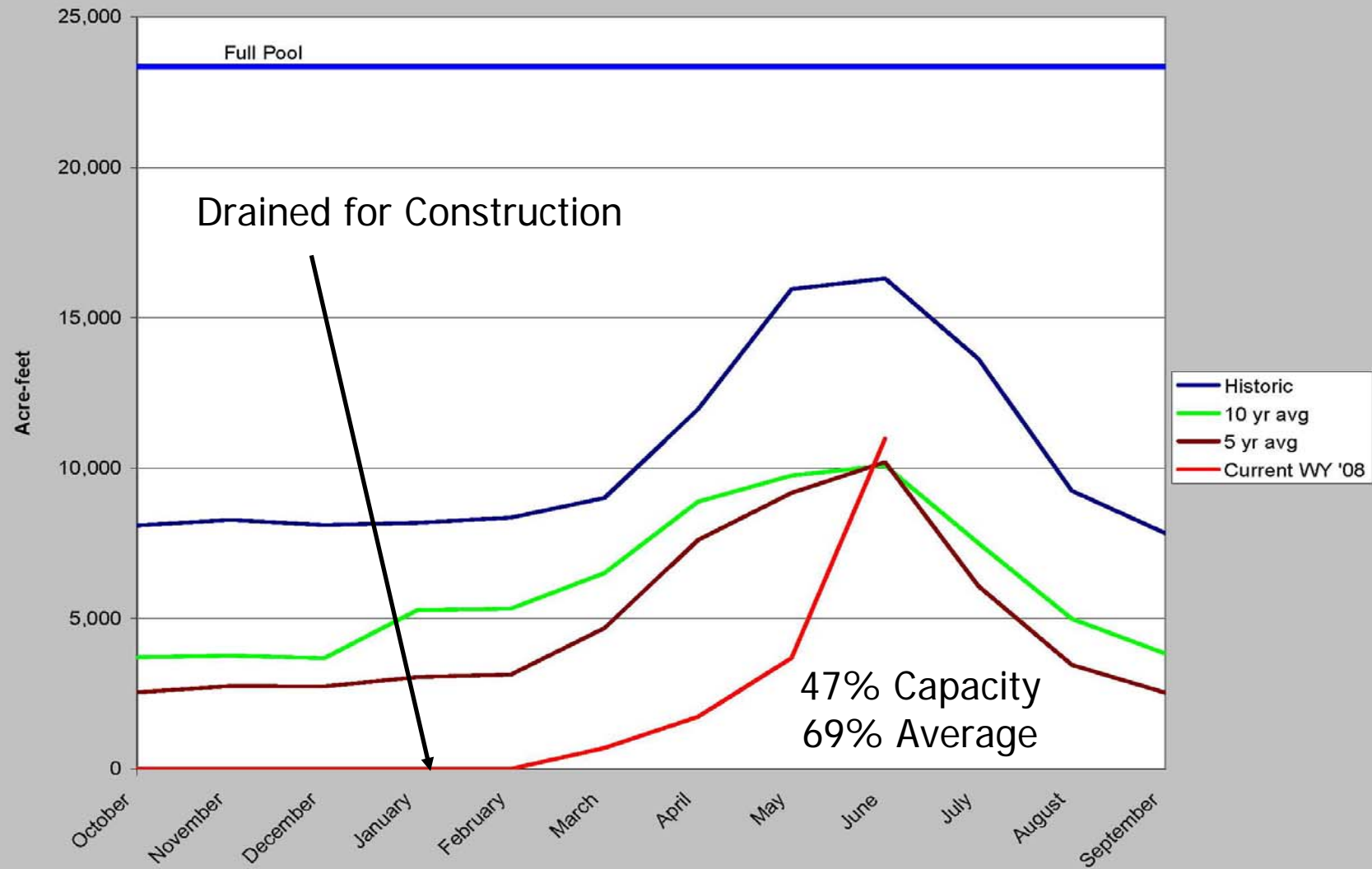
Pointer 46°26'34.30" N 110°16'33.51" W

Streaming ||||| 100%

Eye alt 4129 ft

Martinsdale Reservoir

(Historic, 10 yr, and 5 yr Average vs. Current Storage)



Deadman's Basin



OffStream Storage Musselshell River
Irrigates ~ 34,000 Acres

Pointer 46°20'41.08" N 109°25'50.84" W

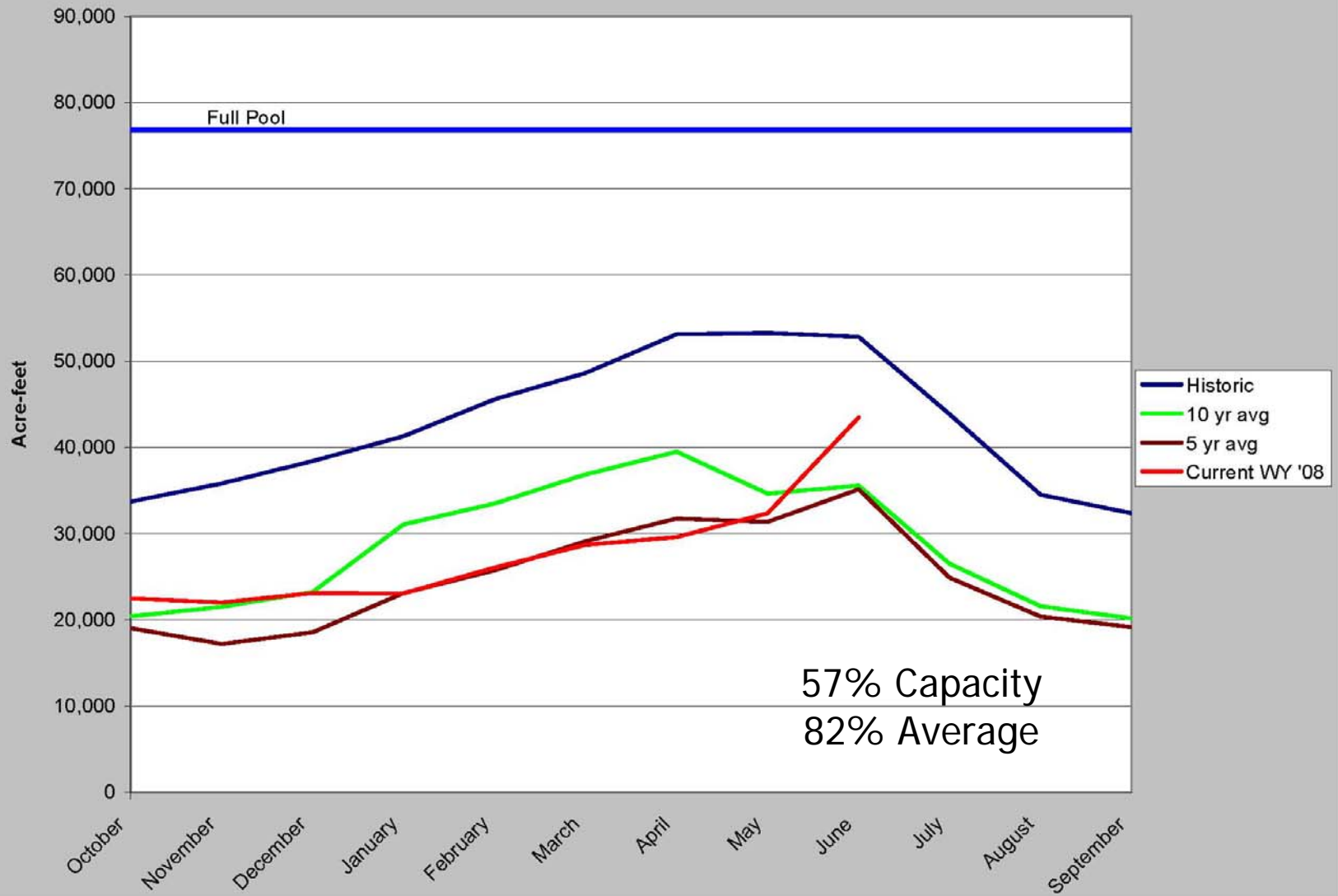
Streaming ||||| 100%

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Eye alt 9074 ft

Deadman's Basin

(Historic, 10 yr, and 5 yr Average vs. Current Storage)



Cooney Reservoir



Red Lodge Ck. And Willow Ck. supply water
Irrigates ~ 40,000 Acres

Image © 2008 DigitalGlobe

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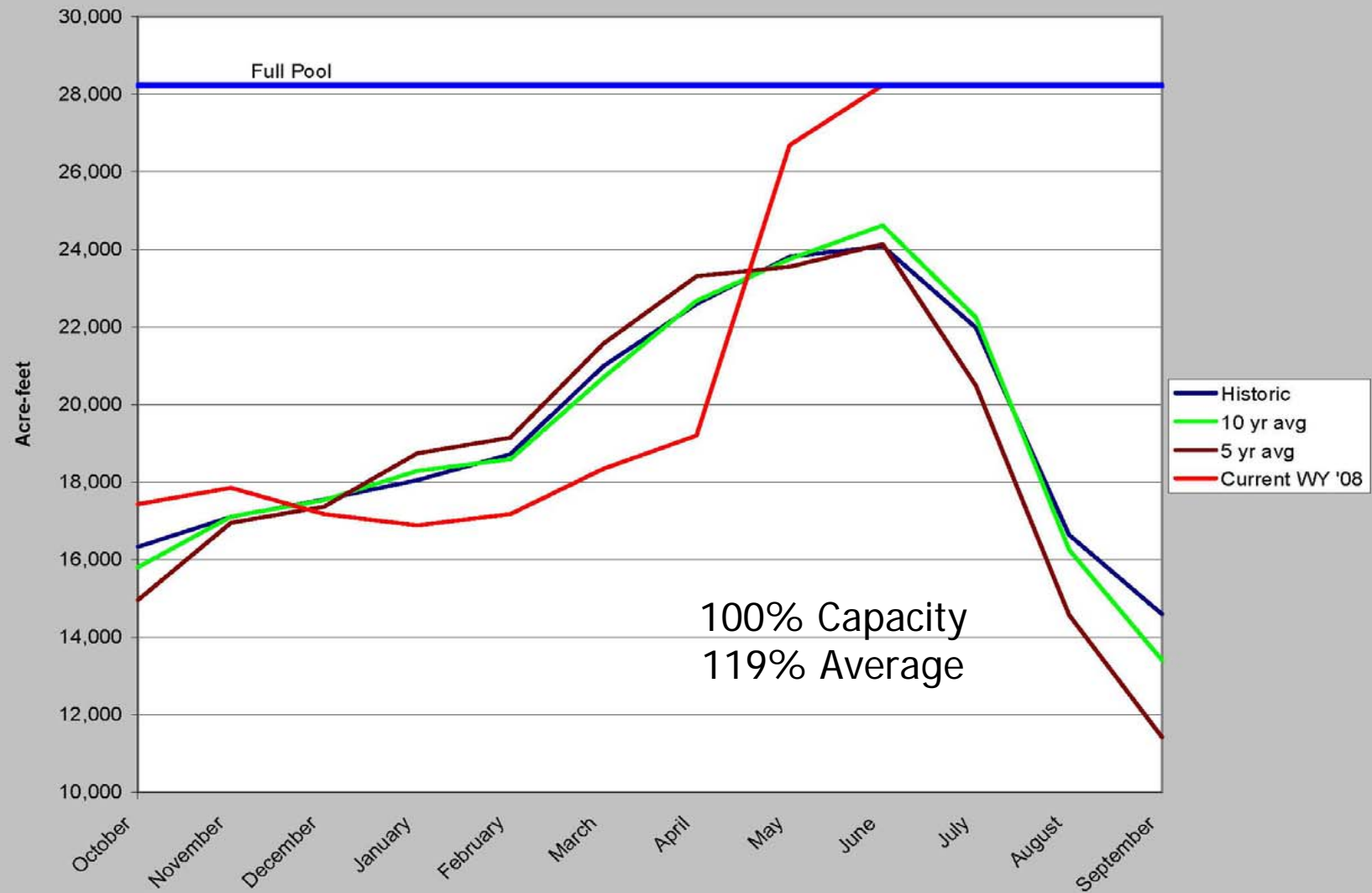
Pointer 45°26'43.51" N 109°13'21.35" W

Streaming ||||| 100%

Eye alt 6467 ft

Cooney Reservoir

(Historic, 10 yr, and 5 yr Average vs. Current Storage)



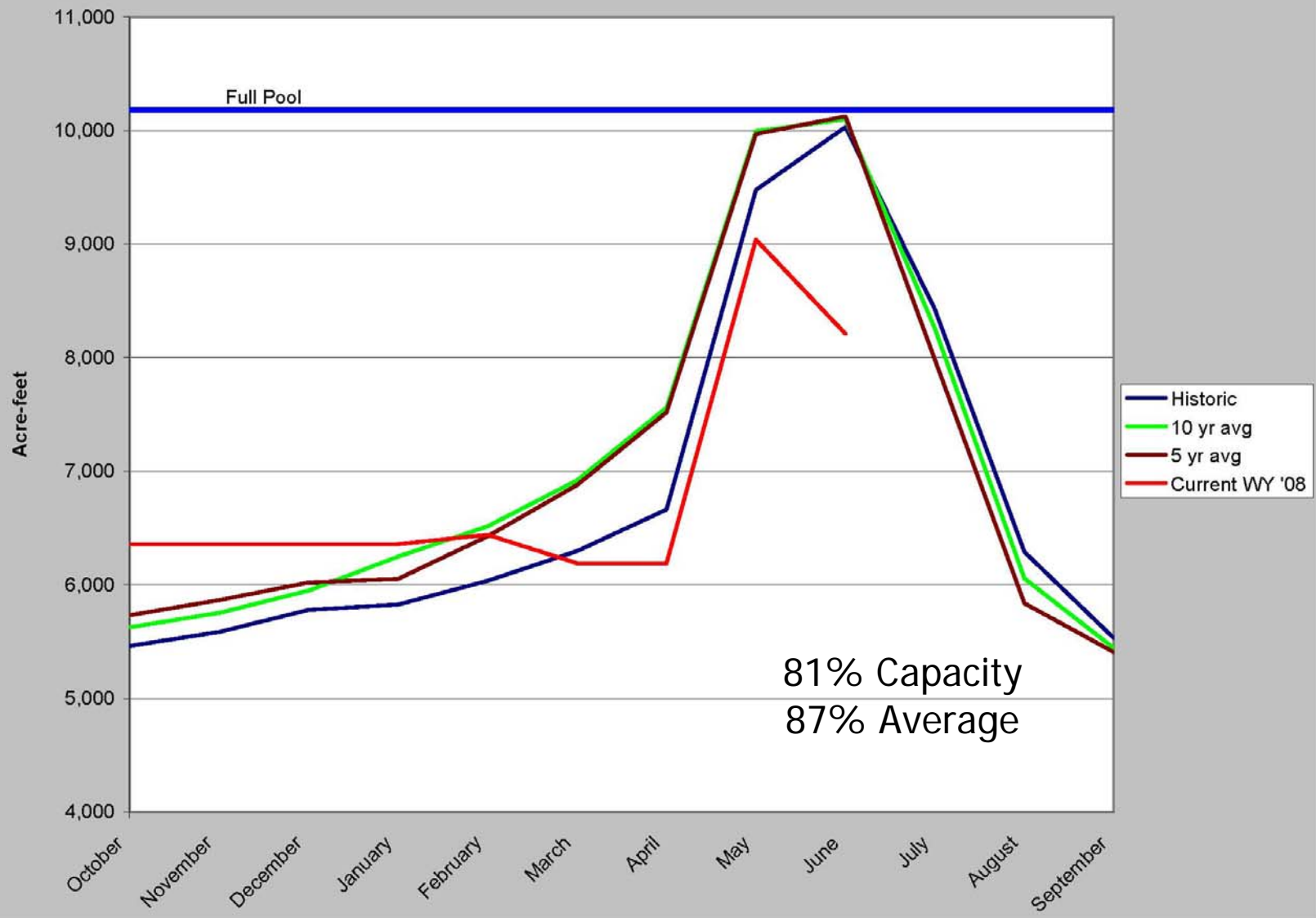
Middle Creek Reservoir



Instream Storage E.F. & W.F. Hyalite Ck.
Irrigates ~16,000 Acres
Municipal Water Supply for City of Bozeman

Middle Creek Reservoir

(Historic, 10 yr, and 5 yr Average vs. Current Storage)



Ruby Reservoir



Instream Storage Ruby River
Irrigates ~ 33,000 Acres

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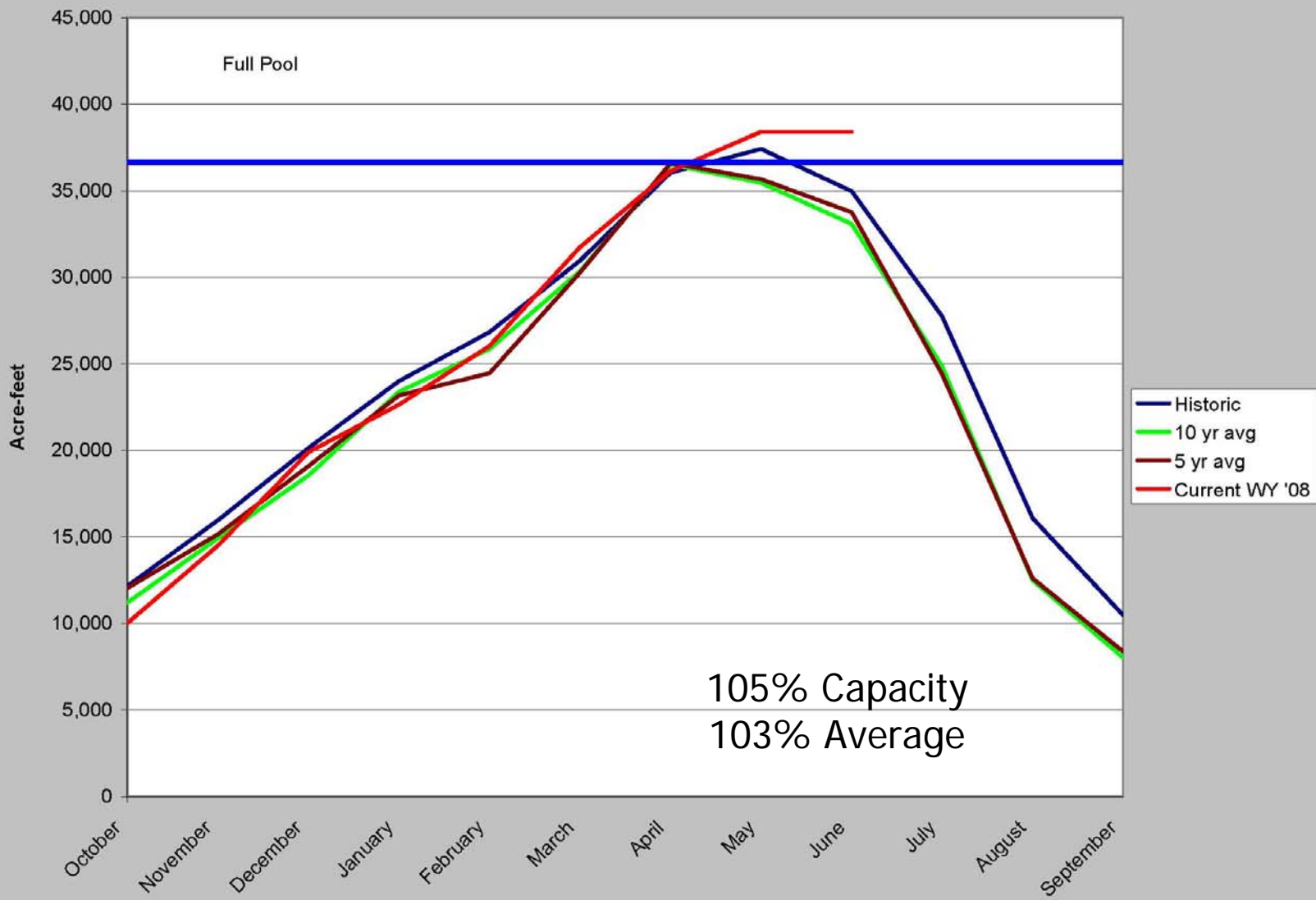
Pointer 45°12'58.85" N 112°08'21.82" W

Streaming ||||| 100%

Eye alt 5687 ft

Ruby Reservoir

(Historic, 10 yr, and 5 yr Average vs. Current Storage)



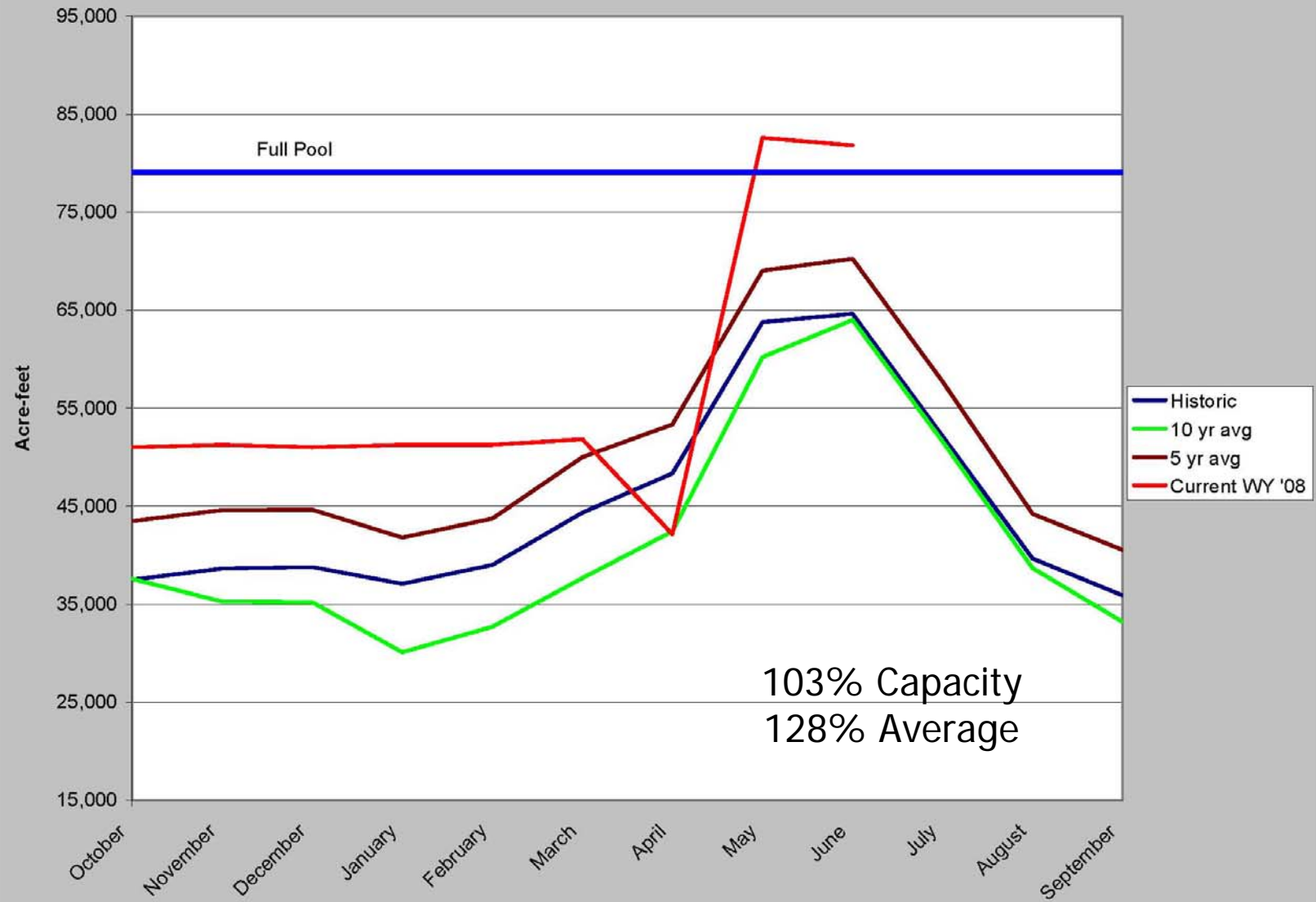
Tongue River

An aerial photograph of the Tongue River dam and reservoir. The reservoir is a large, calm body of water with a deep blue-green hue, surrounded by green hills and some small islands. In the foreground, a long, light-colored concrete dam stretches across the frame. To the right of the dam, a series of smaller, stepped spillways allow water to flow over, creating white rapids. The surrounding landscape is a mix of green grassy fields and patches of bare, reddish-brown earth. A few small buildings and a road are visible near the dam.

Instream Storage Tongue River
Irrigates ~ 30,000 acres

Tongue River

(Historic, 10 yr, and 5 yr Average vs. Current Storage)



Willow Creek Reservoir



Instream Storage Willow Ck. and Norwegian Ck.
Irrigates ~ 12,000 Acres

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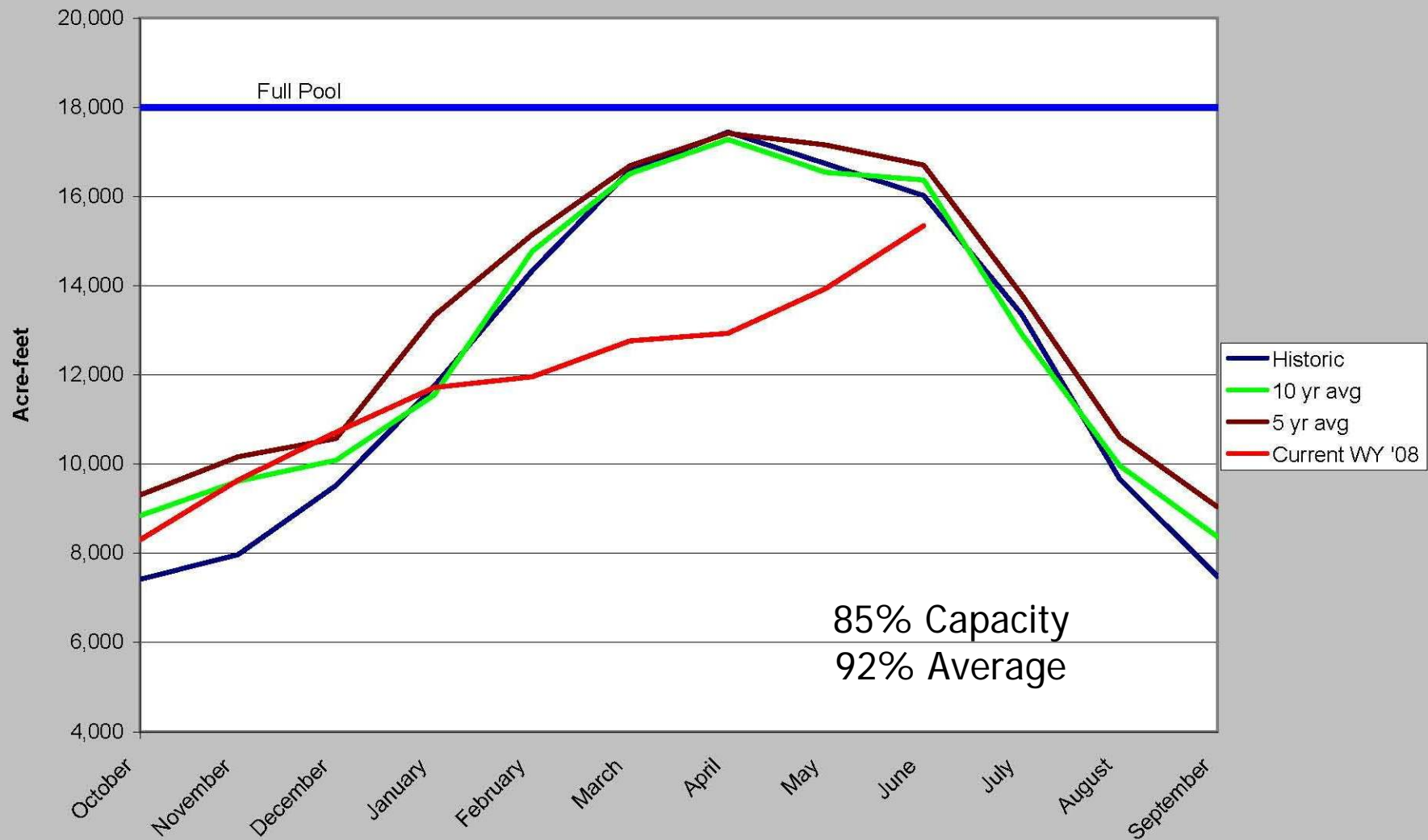
Pointer 45°41'30.20" N 111°42'46.09" W

Streaming ||||| 100%

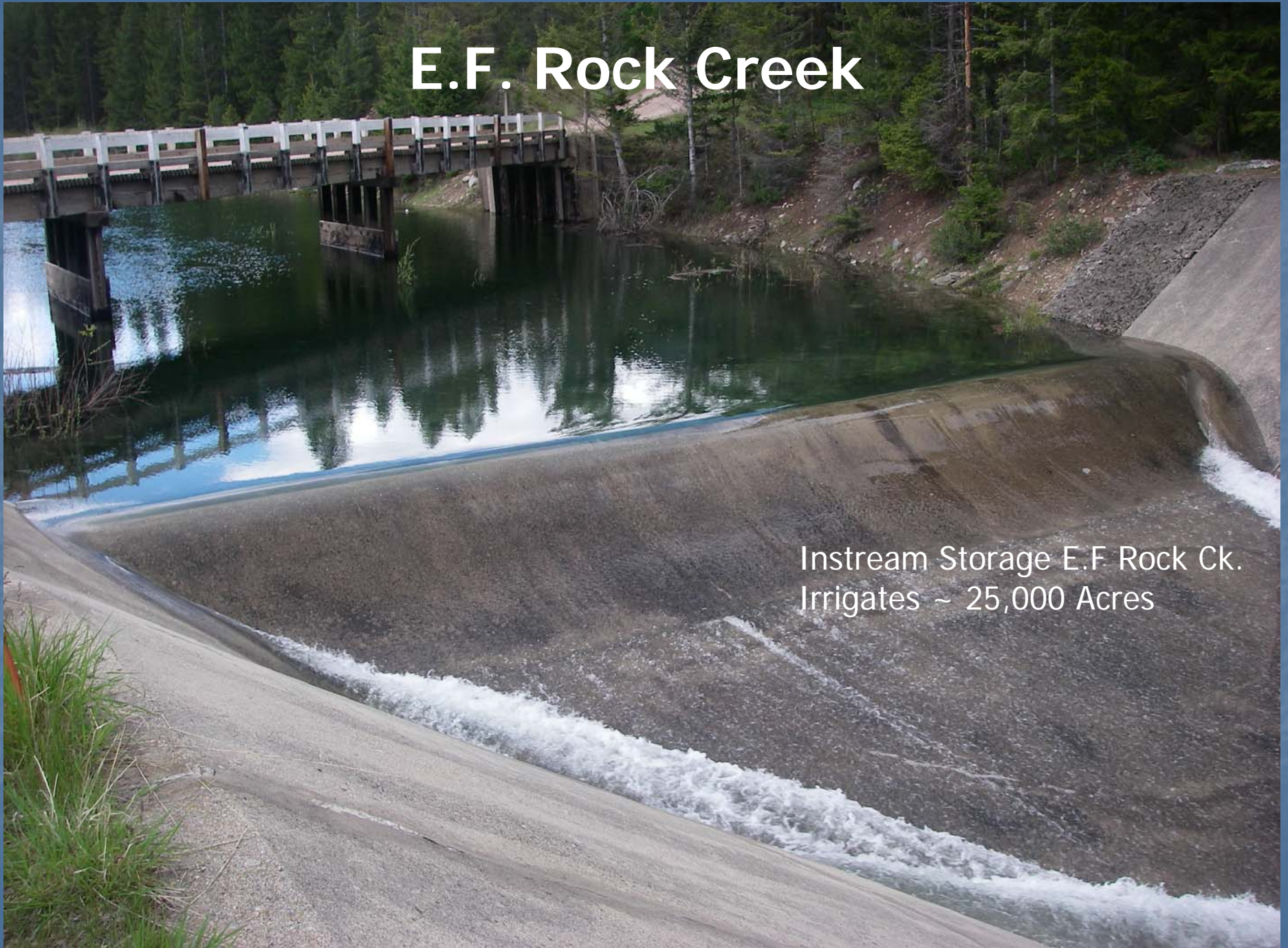
Eye alt 5979 ft

Willow Creek Reservoir

(Historic, 10 yr, and 5 yr Average vs. Current Storage)



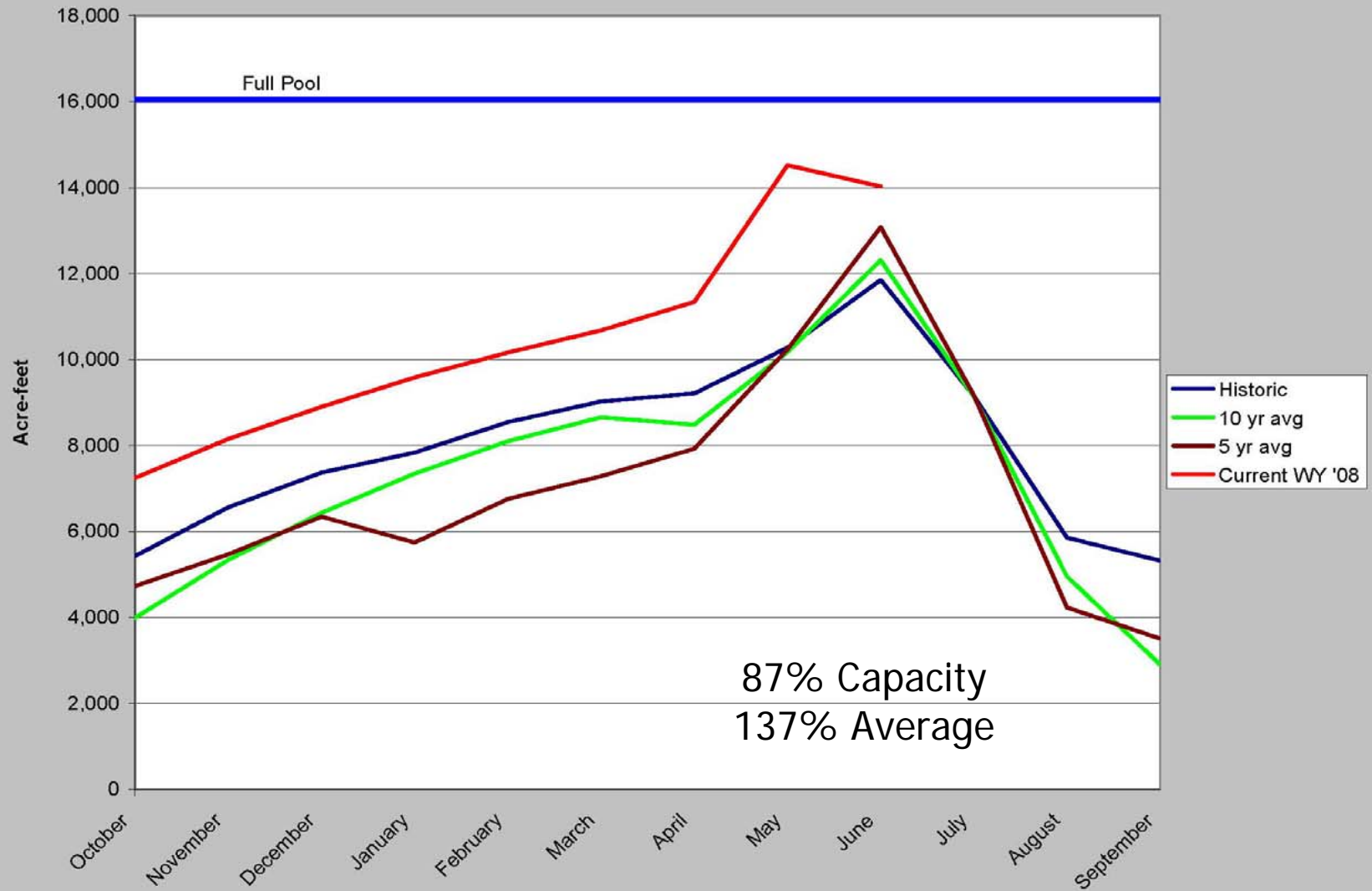
E.F. Rock Creek



Instream Storage E.F Rock Ck.
Irrigates ~ 25,000 Acres

East Fork Rock Creek Reservoir

(Historic, 10 yr, and 5 yr Average vs. Current Storage)



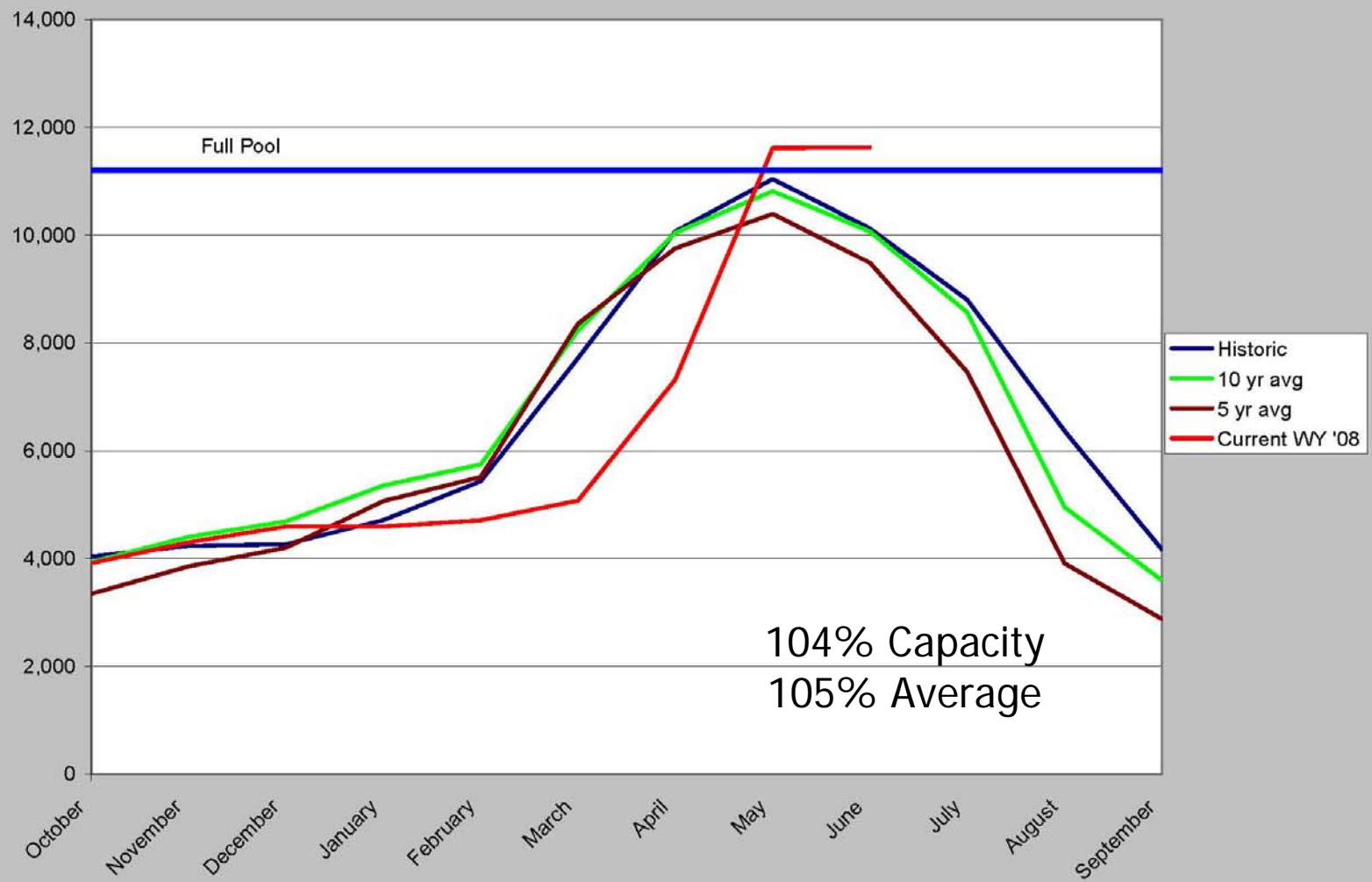
Nevada Creek Reservoir

Instream Storage Nevada Ck.
Irrigates ~ 10,000 Acres



Nevada Creek Reservoir

(Historic, 10 yr, and 5 yr Average vs. Current Storage)



Painted Rocks Reservoir

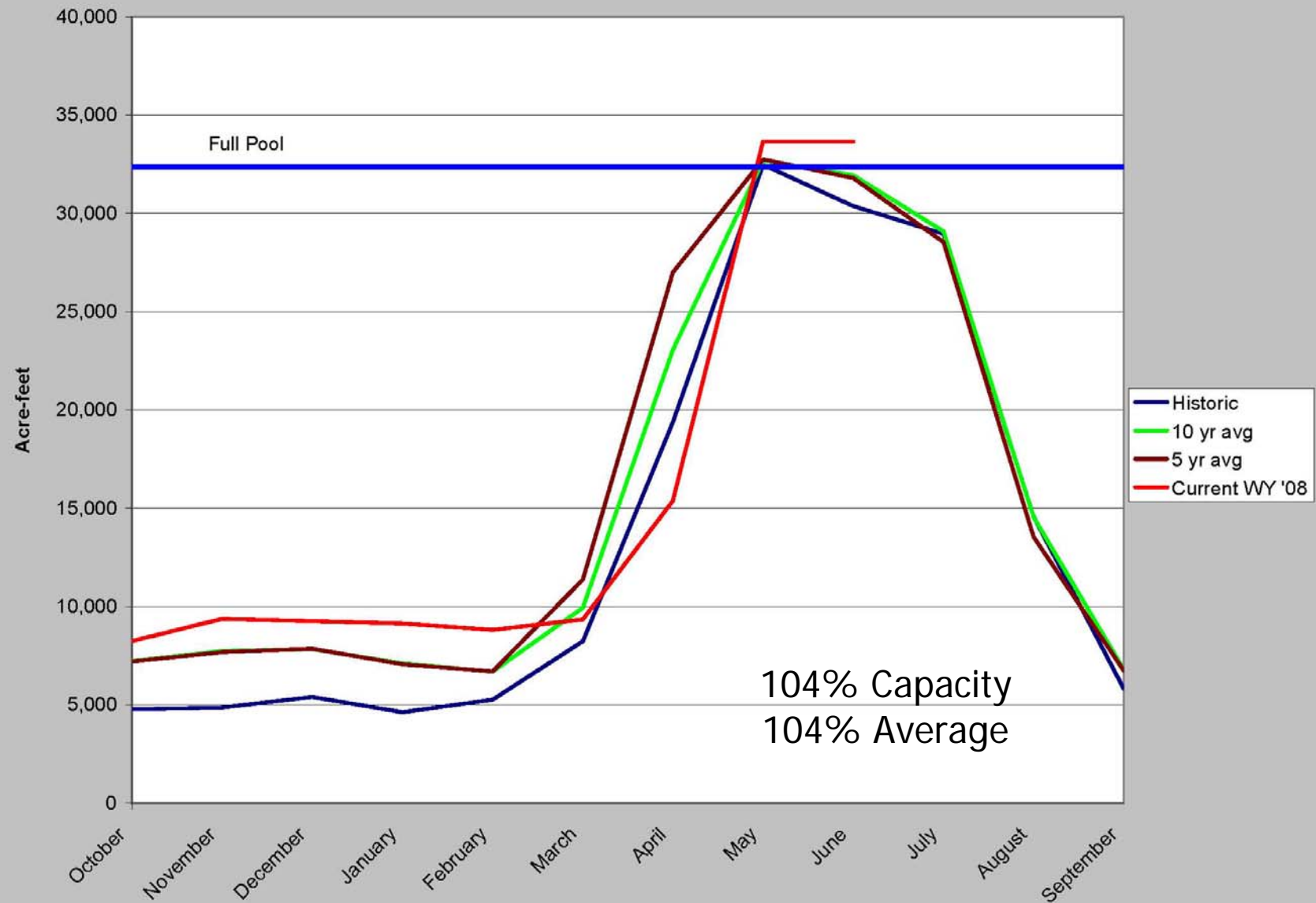
(aka W.F. Bitterroot)



Instream Storage W.F. Bitterroot River
Irrigates ~20,000 Acres

Painted Rocks Reservoir

(Historic, 10 yr, and 5 yr Average vs. Current Storage)



Other Notable State Projects

- Cataract Reservoir-located near Pony/Harrison
- Cottonwood Reservoir-located near Wilsall
- Frenchman Reservoir-located near Saco
- Nilan Reservoir-located near Augusta
- N.F. Smith River-located near White Sulphur Springs
- Yellowwater Reservoir-located near Winnet

Conclusions

- Spring moisture events provided much needed boost in reservoir contents
- Approximately 13 reservoirs (to date) should deliver 100% of contract water and majority of reservoirs above 5 yr avg. More Reservoirs should increase contents with warmer temps and snowmelt.
- Tongue, Cooney, Ruby, Nevada Creek, North Fork Smith, Painted Rocks, and Frenchman Reservoirs are currently spilling.
- Martinsdale and Ackley are below average due to last season construction and pre construction restrictions respectively
- More Storage Hopefully Yet to Occur